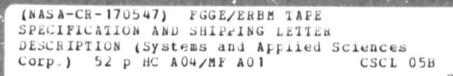
General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.
- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.
- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.
- This document is paginated as submitted by the original source.
- Portions of this document are not fully legible due to the historical nature of some
 of the material. However, it is the best reproduction available from the original
 submission.

NASA CR 170547



N84-16072

Unclas G3/82 11306

FGGE/ERBM TAPE SPECIFICATION AND SHIPPING LETTER DESCRIPTION

MARCH 1983



National Aeronautics and Space Administration

Goddard Space Flight Center Greenbelt, Maryland 20771



*

FGGE/ERBM TAPE SPECIFICATION AND SHIPPING LETTER DESCRIPTION

Systems & Applied Sciences Corp. 5809 Annapolis Road Hyattsville, Maryland 20784

Contract No. 27393 SSD-T-8237-002-82

FGGE/ERBM TAPE SPECIFICATION AND SHIPPING LETTER DESCRIPTION

Systems and Applied Sciences Corporation 5809 Annapolis Road Hyattsville, Maryland 20784

Contract No. NAS5-26753 SSD-T-8237-002-82

TABLE OF CONTENTS

TIT	LE			PAGE
1.	INTR	1		
2.	DATA	SET PRO	ODUCTION	2
	2.1	GENERA	L DESCRIPTION	2
	2.2	TAPCAT	PROGRAM	6
		2.2.2	General Description Data Flow Chart I/O Units List	6 6 7
	2.3	ERBM-20	C PROGRAM	7
		2.3.1 2.3.2 2.3.3	General Description Data Flow Chart I/O Units List	7 8 8
	2.4	ERBM-D	P PROGRAM	9
		2.4.2	General Description Data Flow Chart I/O Units List	9 9 10
	2.5	2.5.1 2.5.2	O PROGRAM General Description Data Flow Chart I/O Units List	11 11 11 12
3.	FGGE,	ERBM T	APE DESCRIPTION	13
	3.1	TAPE S	PECIFICATION	13
			Physical Tape Characteristics Tape Organization	13 13
	3.2	FILE S	PECIFICATION	15
		3.2.2	Test File Tape Header File Grid-Descriptor File Data File	15 15 19

4.	SHIPPI	NG LETTER DESCRIPTION	28
APP	ENDICES		35
	Α.	Abbreviation and Acronyms	35
	в.	Data Set Contents	36
	C.	Sample Run Printout	41



1. INTRODUCTION

The Nimbus-7 FGGE/ERBM tape contains 27 ERB parameters which are extracted and reformatted from the Nimbus-7 ERB-MATRIX tape, in accordance with the FGGE level III International Exchange Format Specification.

There are four types of files on a FGGE/ERBM tape. The first file on the tape is a test file. The second file on the tape is a tape-header file which describes the data set characteristics and the contents of the tape. The third is the grid-descriptor file which contains the information of the ERB scanning channel target number and their associated latitude limits and longitude intervals. remaining one or more files are data files. Single end-of-file (EOF) tape mark will be written after each file, and two (2) EOF marks will be written after the last data file on the tape.

All files are made up of one or more physical records. Each physical record contains 4240 bytes.



2. DATA SET PRODUCTION

2.1 General Description

The FGGE/ERRM computer program converts the terrestrial parameters retrieved from the Nimbus-7 ERB experiment (Table 2-1) into the FGGE level-III format. There are four programs for this conversion. They are TAPCAT, ERBM-2C, ERBM-DP and COPY800*. In the following sections, these four programs are briefly described.

^{*}ERBM-2C program generates 1600 bpi tapes that will be sent to WDC-A and COPY800 program copies 1600 bpi tape to 800 bpi tapes that will be sent to WDC-B.

2.2 TAPCAT PROGRAM

2.2.1 General Description

The TAPCAT Program updates the ERBM.TAPES file as new ERB-Matrix tapes become available. The program obtains the Nimbus tape sequence number, data start time, and data stop time from the tape. These are inserted with the tape library slot number into the ERBM.TAPES file. The file is sorted by data start time, and is listed for user convenience.

2.2.2 Data Flow Chart

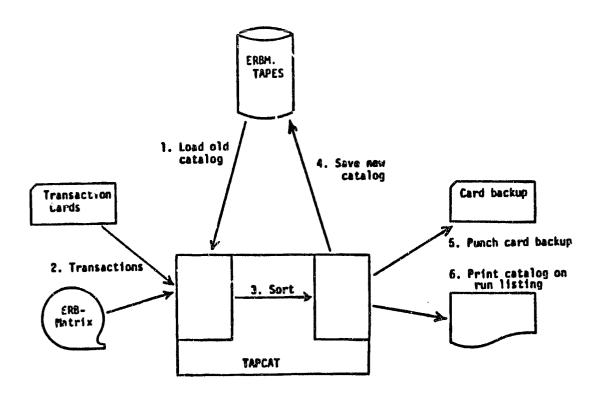


Figure 2-1. TAPCAT Data and Control Flow

TABLE 2-1

ERB Parameters

PARAMETERS	DESCRIPTIONS			
1	Data Population of WFOV Observations - A.N.			
2	Data Population of WFOV Observations - D.N.			
3	L.W. Terrestrial Flux from WFOV Observations - A.N.			
4	L.W. Terrestrial Flux from WFOV Observations - D.N.			
5	Computed Maximum Reflected Energy (0.2-4.0 μm) for WFOV - A.N.			
6	Computed Maximum Reflected Energy (0.2-4.0 μm) for WFOV - D.N.			
7	Computed Maximum Reflected Energy (0.7-3.0 μm) for WFOV - A.N.			
8	Computed Maximum Reflected Energy $(0.7-3.0 \mu m)$ for WFOV - D.N.			
9	Reflected Energy from WFOV Observations (0.2-4.0 μm) - A.N.			
10	Reflected Energy from WFOV Observations (0.2-4.0 $\mu m)$ - D.N.			
11	Reflected Energy from WFOV Observations (0.7-3.0 $\mu m)$ - A.N.			
12	leflected Energy from WFOV Observations (0.7-3.0 μm) - D.N.			
13	Earth Albedo from WFOV Observations (0.2-4.0 $\mu m)$ Using Solar Zenith Angle Correction			
14	Earth Albedo from WFOV Observations (0.2-0.7 μm) Using Solar Zenith Angle Correction			
15	Earth Albedo from WFOV Observations (0.7-3.0 μm) Using Solar Zenith Angle Correction			
16	Net Radiation from WFOV Observations			

THE PERSON OF TH

^{*} These parameters will not be on the FGGL/EREM tapes.

TABLE 2-1 (continued)

ERB Parameters

PARAMETERS	<u> </u>			
17	S.W. Data Population of NFOV Observations - A.N.			
18	S.W. Data Population of NFOV Observations - D.N.			
19	L.W. Terrestrial Flux from NFOV Observations - A.N.			
20	L.W. Terrestrial Flux from NFOV Observations - D.N.			
21	Average L.W. Terrestrial Flux from NFOV Observations (Weighted Average of A.N. and D.N. Data)			
22	Earth Albedo from NFOV Observations			
23	Net Radiation from NFOV Observations			
24	L.W. Data Population of NFOV Observations - A.N.			
25	L.W. Data Population of NFOV Observations - D.N.			
*26	Data Population of WFOV Averaged L.W. Flux (Incremented on a Daily Basis)			
*27	Data Population of NFOV Averaged L.W. Flux (Incremented on a Daily Basis)			
*28	Averaged L.W. Terrestrial Flux from WFOV Observations (Average of A.N. and D.N. Data)			
*29	Normalized Dispersion of L.W. Lerrestrial Flux from WFOV Observations Based on Parameters 3 and 4			
*30	Normalized Dispersion of Earth Albedo from WFOV Observations (0.2-4.0 µm) Based on Parameter 13 Daily Values			
*31	Standard Deviation of Net Radiation from WFOV Observations			
*32	Normalized Dispersion of Averaged L.W. Terrestrial Flux from NFOV Observations Based on Parameter 21			
*33	Normalized Dispersion of Earth Albedo from NFOV Observations			

^{*}These parameters will not be on the FGGE/ERBM tapes.

TABLE 2-1 (Cont'd)

ERB Parameters

PARAMETER	#	DESCRIPTIONS			
*34		Standard Deviation of Net Radiation from NFOV Observations			
*35		Minimum Earth Albedo from NFOV Observations			
36		Average Solar Insolation			
37		Earth Albedo from WFOV Observations (0.2-4.0 $\mu m)$ NOT Using Solar Zenith Angle Correction in Calculations			
A.N. D.N.		Ascending Node Descending Node			

^{*}These parameters will not be on the FGGE/ERBM tapes.



- 2 tape label input
- 4 disk file ERBM. TAPES
- 5 card input
- 6 printer output
- 7 punch card output
- 12 ERB Matrix data records

2.3 ERBM-2C PROGRAM

2.3.1 General Description

The ERBM-2C Program determines the time span desired for the data, correlates this with the available data, and mounts the required ERB-MATRIX tapes. The selected terrestrial parameter (see Table 2-1) are converted to the FGGE level III International Exchange Format, and are stored on an intermediate tape in 1-month files. When the end of the desired data is reached, the final output tape is mounted.

The program writes a test file, a tape header file, and a grid descriptor file on the output tape, and then copies the data files from the intermediate tape to the output tape.

ORIGINAL PAGE IS OF POOR QUALITY

2.3.2 Data Flow Chart

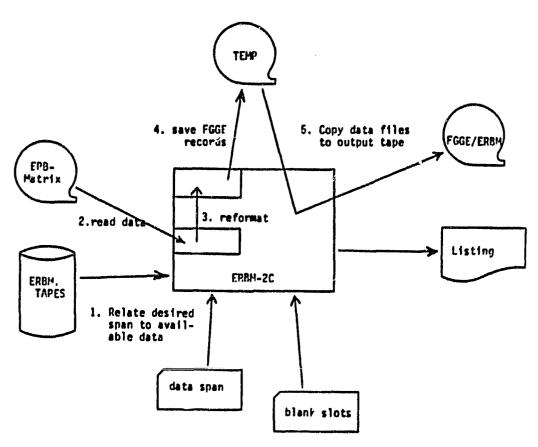


Figure 2-2. ERBM-2C Data and Control Flow.

2.3.3 I/O Units List

UNIT	DEVICE	LRECL/BLKSIZE(BYT	ES)
1	9T/6250*	6300	ERB-Matrix tape label(IN)
2	9T/6250*	4240	temp. tape - data (OUT/IN)
5	card reader	80	data cards
6	printer		
8	unit 17	4240	final output tape data files
10	disk	80/800	ERBM.CLIST(TABLES), ERBM.CLIST(HDRFILE) (IN)
15	unit 1	4908/14724	ERB-Matrix data record (IN)
17	9T/6250*	80/4240	final output tape

^{*9} Track 6250 BPI computer compatible tape.

2.4 ERBM-DP PROGRAM

2.4.1 General Description

The ERBM-DF Program creates the shipping documentation and optional diagnostic information for the FGGE/ERBM data tapes. Statistics showing record counts and data element counts are compiled for comparison to the 2C printout. Special print options are available for detailed analysis of the data. All the cutput tapes (the 6250 BPI tapes are retained at GSFC, the 1600 BPI tapes are shipped to WDC-A, and the 800 BPI tapes are shipped to WDC-B) are processed separately through this program.

2.4.2 Data Flow Chart

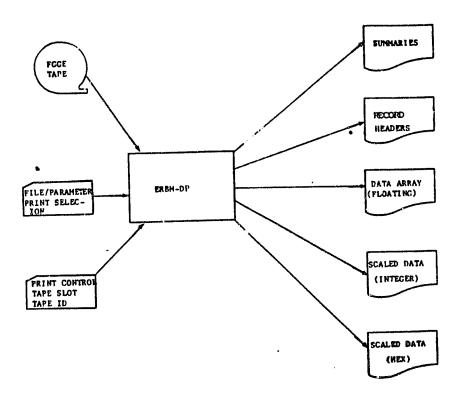


Figure 2-3. FGGE/ERBM-DP DATA FLOW



2.4.3 I/O Units List

<u>Unit</u>	<u>Device</u>	<u>lrecl/blksize</u>		
1	9T/1600BPI	4240	FGGE/ERBM tape in	put
5	card reader		đata card*	
6	printer		data summaries, e	rror messages
8	printer		tape header, grid data record heade	-
9	printer		data array dump: de-scaled	floating,
10	printer		data array dump: scaled	integer,
11	printer		data array dump:	hex, scaled

Print level = 0: unit 6
1: units 6 and 8
2: units 6, 8, and 9
3: units 6, 8, 9, and 10
4: units 6, 8, 9, 10, and 11

^{*} Data card specifies print level and parameter numbers to be dumped.

2.5 COPY800 PROGRAM

2.5.1 General Description

The COPY800 Program converts a 1600 BPI format FGGE/ERBM tape into an 800 BPI format FGGE/ERBM tape. The number of records in the test file is reduced to cover about 20 meters of the tape. The tape header is changed to state "800 BPI" instead of "1600 BPI" or "6250 BPI".

2.5.2 Data Flow Chart

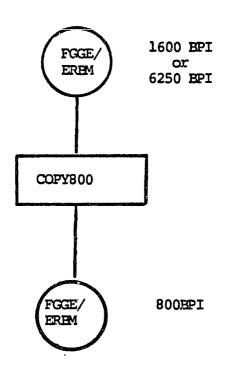


Figure 2-4. COPY800 Dr Flow



2.5.3 I/O Units List

UNIT	DEVICE		
1	9 Track/1600 BPI or 9 Track/6250 BPI	FGGE/ERBM tap	e (IN)
2	9Track/800 BPI	FGGE/ERBM tap	e (OUT)
6	Printer		

3. FGGE/ERBM TAPE DESCRIPTION

3.1 Tape Specification

Density:

3.1.1 Physical tape characteristics

The physical characteristics of the FGGE/ERBM tape are described in the following:

800 BPI

1600 BPI

6250 BPI

Mode of Recording:	NRZI	PE	PE
Recording code:			
Header File and			
Grid Descriptor File:	EBCDIC	EBCDIC	EBCDIC
Test File and Data File:	Binary	Binary	Binary
Number of tracks:	9	9	9
Parity:	ODD	ODD	ODD

3.1.2 Tape Organization

The gross format of the FGGE/ERBM tape is shown in Figure 3-1. The first file on the tape is a test file and the second file is a tape header file. The third file on the tape is a grid-descriptor file and the remaining one or more files are data files. Single EOF tape mark is written after each file and 2 EOF tape marks are written after the last file on the tape.

7_1

Beginning of Tape

TEST FILE
EOF
TAPE HEADER FILE
EOF
GRID DESCRIPTOR FILE
EOF
DATA FILE 1
EOF
DATA FILE 2
EOF
EOF
DATA FILE N
EOF
EOF
UNUSED TAPE
-

ENDING OF TAPE

FIGURE 3-1 TAPE GROSS FORMAT

3.2 FILE SPECIFICATION

There are four types of files on a FGGE/ERBM tape. The first file on the tape is a test file. The second file on the tape is a tape header file. The third file on the tape is grid-descriptor file. The remaining files are the data files. Each of these files type is described in the following.

3.2.1 Test File

The test file contains 258 physical records on 1600 BPI tapes and 150 physical records on 800 BPI tapes. Each physical record contains 53 logical records. Each logical record contains 80 bytes. Each byte contains a hexadecimal FF (binary 11111111).

3.2.2 Tape-Header File

The tape-header file contains 4 physical records. Each physical record contains 53 logical records. Each logical record contains 80 bytes. Each byte contains an EBCDIC coded character.

The tape-header file contains information describing the data-set characteristics and the contents of the tape.

The contents of each of these logical records of the first physical record are shown in the Figure 3-2.

ORIGINAL PAGE 13 OF POOR QUALITY

LOGICAL RECORD CONTENTS

FGGE2C20007811160078113018

004240

FORMAT(20A4)

0123456789=;> STUVWXYZ,)-JKLMNOPQR*;;+ABCDEFGHI.);<
9 TRACK, 1600 BFI

BINARY DATA, ODD PARITY
IBM 360/91
NASA / GODDARD SPACE FLIGHT CENTER U.S.A.
FORMAT(1060A4)

THIS TAPE CONTAINS SELECTED TERRESTRIAL PARAMETERS FROM THE NIMBUS-7 EARTH RADIATION BUDGET EXPERIMENT.

PROCESSED FOR FGGE ON: MON MAR 22,1982

SCIENTIST:

GARY N WOLFORD

ADDRESS:

NASA / GODDARD SPACE FLIGHT CENTER

GREENBELT, MARYLAND

20771 (U.S.A.)

UNITED STATES OF AMERICA

THIS TAPE FOLLOWS THE FGGE LEVEL-3 FORMATS INSTEAD OF THE LEVEL-2 FORMATS.

WARNING:

THE FILL FLAG FOR THE ARRAY OF PACKED INTEGERS Q(I) IS DEFINED

THE USER'S PROGRAM SHOULD CHECK FOR THIS FILL FLAG -BEFORE-UNFACKING THE Q(I), AS THE UNPACKING PRODUCES UNPREDICTABLE

RESULTS WHEN PERFORMED ON THE FILL FLAG.

FIGURE 3-2. TAPE-HEADER FILE-FIRST THIRTY-FOUR LOGICAL RECORDS

Record 1:

The first logical record contains the project name (FGGE2C), the procedure code (2000), and the beginning and ending synoptic time of data on the tape.

The times are variable data and contain the major synoptic times of the first and the last data files on the tape. There are two-byte fields for the year (YF,YL), the month (MF,ML), the day (DF,DL), and the hour (HF,HL) of the first and last major synoptic times. (The character F indicates the first major synoptic time and L indicates the last major synoptic time.) The year field represents the last two digits of the year. As an example, 1981 would be represented by an EBCDIC-coded 81. The month values range from 01 to 12. The day values range from 01 to 31. The nour values are either 00, 06, 12 or 18.

Record 2:

The second logical record contains the BLOCKSIZE of the physical record in the file of the tape.

Record 3:

The third logical record contains the FORTRAN format of the first 80 bytes (e.g., 20A4).

Record 4:

The fourth logical record contains the translation table which will be stored exactly as shown in Figure 3-2.

Record 5-6:

The fifth and sixth logical records contains the information on the physical tape characteristics.

Record 7:

The seventh logical record contains the name of the the computer used to generate level III data.

Record 8:

The eighth logical record contains the name of the center and country providing the data set.

Record 9:

The ninth logical record contains the FORTRAN format to read level III data.

Record 10-11:

The tenth and eleventh logical records are filled with binary coded blanks.

Record 12-13:

The twelth and thirteenth logical records contains the name of the data set.

Record 14:

The fourteenth logical record is filled with binary coded blanks.

Record 15:

The fifteenth logical record contains the date the tape was created.

Record 16: The sixteenth logical record is filled with binary coded blank.

Record 17-20: The seventeenth logical record through the twentieth logical record contain the name of the responsible scientist and full address of the responsible scientist.

Record 21-36: The twenty-first logical record through the thirty-sixth logical record contain the comments concerning representation of the data values (particularly fill data) in the data records.

Record 37-53: The thirty-seventh logical record through the fifty-third logical record contain part of the card image listing of Table 1 in Appendix III of THE FORMATS FOR THE INTERNATIONAL EXCHANGE OF LEVEL III DATA SETS DURING THE FGGE in Appendix III.

The second physical record through the fourth physical record contain the remaining part of the card image listing of TABLE I, the card image listing of TABLE III, TABLE VII, TABLE VIII, and TABLE XI of the FORMATS FOR THE INTERNATIONAL EXCHANGE OF LEVEL III DATA SETS DURING THE FGGE.

3.2.3 Grid Descriptor File

The grid descriptor file contains information on the ERB scanning channel target numbers and their associated latitude limits and longitude intervals. This information is listed in Figure 3-3. The Grid descriptor file contains EBCDIC coded characters.

3.2.4 Data File

There are two types of logical records in a data file. Each of these logical record types is described in the following.

3.2.4.1 Header Logical Record

The first logical record of each physical record of the data file is the header logical record. The description is shown in Figure 3-4. Bytes 49 through 50 contain the scaled value of the first data point. Bytes 79 through 80 contain the scaled value of the sixteenth data point.

3.2.4.2 Data Logical Record

Following the header logical record are data logical records. Each data logical record contains forty scaled value data points. The last data logical record only contains fourteen scaled value data points. The remaining 52 bytes of the last data logical record are filled with zeroes. One physical record format is shown in Figure 3.5.

(F

ORIGINAL PAGE IS OF POOR QUALITY

THE ERB NUMBERING SYSTEM ASSIGNS A NUMBER, BETWEEN 1 AND 2070, TO EACH TARGET AREA STARTING FROM THE SOUTH POLE. FOR EACH LATITUDE BAND THE LONGITUDE INTERVALS START AT THE O DEGREE MERIDIAN AND PROGRESS WEST BY THE INCREMENTS LISTED. WITHIN EACH LATITUDE BELT THE TARGET NUMBERS INCREASE WESTWARD FROM THE 0.0 DEG HERIDIAN AND CONTINUE TO INCREASE WITHIN THE ADJACENT LATITUDE BELT TO THE NORTH

	LATITUDE LIMITS	LONGITUDE Interval
1-3	POLE 85.5 85.5 81.0	120.0
4-12	85.5 81.0	40.0
13-28	81.0 76.5	22.5
29-48	76.5 72.0	18.0
49-78	72.0 67.5	12.0
79-114	67.5 63.0	10.0
115-154	63.0 58.5	9.0
155-199	58.5 54.0	8.0
200-247	54.0 49.5	7.5
248-307	49.5 45.0	6.0
308-367	45.0 40.5	6.0
368-427	40.5 36.0	6.0
	36.0 31.5	5.0
500-571	31.5 27.0	5.0
572-643	27.0 22.5	5.0
644-715	22.5 18.0	5.0
716-795	18.0 13.5	4.5
796-875	13.5 9.0 9.0 4.5	4.5
876-955		4.5
956-1035	4.5 EQUATOR	
1036-1115 1116-1195	EQUATOR 4.5	4.5
1176-1175	4.5 9.0 9.0 13.5	4.5 4.5
1276-1275		4.5
1356~1427	13.5 18.0 18.0 22.5	₩•5 5•0
1428-1499	22.5 27.0	5.0
1500-1571	27.0 31.5	5.0
1572-1643	31.5 36.0	5.0
1644-1703	36.0 40.5	6.0
1704-1763	40.5 45.0	6.0
1764-1823	45.0 49.5	6.0
1824-1871	49.5 54.0	7.5
1872-1916	54.0 58.5	8.0
1917-1956	58.5 63.0	9.0
1957-1992	43.0 67. 5	10.0
1993-2022	67.5 72.0	12.0
2023-2042	72.0 76.5	18.0
2043-2058	76.5 81.0	22.5
2059-2067	61.0 85.3	40.0
2068-2070	85.5 FCLE	120.0

Fig. 3-3. Grid Descriptor File



Bita	No. of Bita	Parameter	Pescription	Remarko*	Value (100)
1 - 12	12	Q	Data type	See Table 1	701-70P,7ED,7E1-7E9, 7F(HEX)
13 - 24	12	81	Type of Surface 1	See Table I	TDG (REX)
25 - 32	8	P ₁	Ti wo	See Table III	E (HEX)
33 - 36	4	$ au_{f k}$	Timo marker 1	See Table III	D (HEX)
37 ~ 56	2C	$c_{\mathbf{l}}$	Numerical value of surface 1		
57 - 64	8	E ₁	Exponent of 10 for C1		
65 - 68	4	м	Level-difference marker	See Table IV	0
69 - 76	0	x	Exception marker	See Table V	255 (DEC)
77 - 88	12	⁶ 2	Type of surface 2	See Table I	0
89 - 96	8	P ₂	Time marker 2	See Table III	0
97 - 100	4	N	Spectral quantity marker	See Table II	0
101 - 120	20	c ²	Numerical value of surface 2		
121 - 120	8	E2	Exponent of 10 for C2		
129 - 136	8	c o	Climatological marker	See Table VI	0
137 - 144	8	ОН	Climatological marker	See Table VI	0
145 - 152	8	KS	Method marker	See Table VIII	241-247 (DEC)
153 - 160	8	К	Gr\d-typo marker	See Table VII	PE (HEX)
161 - 176	16		Unused	Set to zero	
177 - 192	16	NAV	Number of 32-bit words in record		
193 - 200	8	JJ	Year	78 = 1978	
201 - 208	8	MM	Month	1-12 (JanDec.)	
209 - 216	8	YY	Day of month	1-3)	
217 - 224	8	Œ	Initial hour	GMT	
225 - 232	8	R	Run marker	See Table IX	FF (HEX)
233 - 240	8	G	Generating code	Reserved for Natl. us	9
241 - 256	16	J	Number of data values in the array	Starting at bit 385	
257 - 272	16	В	Number of 8-bit bytes in the record		
273 - 288	16	z	Logical checksum (optional)	See Appendix D	
289 - 320	32	A	Mid-range value	See Appendix B	
321 - 336	16		Unused	Set to zero	
337 - 352	16	N	Scaling value	See Appendix B	
353 - 334	32		Unused	Set to zero	
385 - 400	16	Q_1	Scaled value 1		
401 - 416	16	o ₂	Scaled value 2		
•	•	•	•		
•	•	•	•		
•	•	•	•		
625 - 640	16	o ₁₆	Scaled value 16		

Pigure 3-4 Header Logical Record

*Refer to the APPENDIX 11, APPENDIX A. of "RGGE DATA MANAGEMENT PLAN". Specific values for these parameters are listed in Table 3-1 through 3-10.

ORIGINAL PAGE 19 OF POOR QUALITY



ORIGINAL PAGE IS OF POOR QUALITY

-	data type		C	type of	Burface 1		1		
~	time ment	numerical	value of	urface			7 5	112	
(L.)	level-						7	exponent of 10 for CI	13
	difference	Tay Ve	×			type of surface 2	ß	tine marker 2	2
	merker H			-			-		
~	spectral	nmerical value	7	surface 2			1		
	quality						צ	exponent of 10 for C2	EZ
	marker N								
S	climatological marker	6	climatological merker	merker	5	method marker	R	Original market	'
9	unsed				-	20 AC 37 LIA		Structure Market	4
7	year	33	month		£	day of month	ŽŽ,	Initial bur	E
60	run marker	В	generating code	ng code	υ	no. of data walues in the array	20		3 .
Ø.	no. of 8-bit bytes in the record	20Lg			æ	Indical chartean (restimes))			ا ا
10	mid-responsible					Company (Company)			63
-									K
;	Destur					scaling value			æ
71			umsed		į				
13	acaled value 1				8	scaled value 2			8
*	scaled value 3				8	scaled value 4			3 2
,									5
,	•								
•	• •								
•	•								
1047	scaled value 2069				05069	- 2070 - 2070			
1048	zero filled spares								26070
•									
1060									

Fig. 3-5. Physical Record

Word



ORIGINAL PAGE IS

Table 3-1. Q and S Parameters and Surfaces (1)

N	umber			Standard
Hex	DEC	Abbreviation	Parameter Name	Unik
•	0	•	•	•
•	•	•	•	•
•	•	•	Marker 7 mm n farmer 0 -6	•
7D0	2000	-ERBSU	Nimbus 7 ERB Reference Surface	
750	2000	-EKB5U	Upper Troposphere	
			Nimbus-7 ERB Wide Field of View Param-	
			eters (Daily and Monthly World Grids)	
7D1	2001	-WPOPA	Data Population - Ascending Node (AN)	Dimensionle
7D2	2002	-WPOPD	Data Population - Descending Node (DN)	Dimensionle
7מ7	2003	-WLWFA	Long Wave Terrestrial Flux - AN	$W-m^{-2}$
™D4	2004	-WLWFD	Long Wave Terrestrial Flux - DN	W-m ⁻²
7D5	2005	-CMRLA	Computed Maximum Reflected Energy (.2-4 µ m) - AN	W-m ⁻²
7D6	2006	-CMR1D	Computed Maximum Reflected Energy (.2-4 µ m) - DN	W-m-2
7D7	2007	-CMR3A	Computed Maximum Reflected Energy (.7-3 \u03bc m) - AN	W-m-2
7D8	2008	-CMR3D	Computed Maximum Reflected Energy (.7-3 \mu m) - DN	W-m-2
7D9	2009	-RFE1A	Reflected Energy (.2-4 µ m) - AN	$W-m^{-2}$
7DA	2010	-RFE1D	Reflected Energy (.2-4 µ m) - DN	W-m-2
7DB	2011	-RFE3A	Reflected Energy (.7-3 u m) - AN	W-m-2
7DC	2012	-RFE3D	Reflected Energy (.7-3 µ m) - DN	W-m-2
7DD	2013	-WALB1	Earth Albedo (.2-4 µ m)	Percent
7DE	2014	-WALB2	Earth Albedo (.27 m)	Percent
7DF	2015	-WALB3	Earth Albedo (.7-3 µ m)	Percent
7ED	2016	-wnetr	Net Radiation	W-m-2
			Nimbus-7 ERB Narrow Field of View	
			Parameters (Daily and Monthly World Grids)	
7E1	2017	-nswpa	Short Wave Data Population - AN	Dimensionles
7E2	2618	-NSWPD	Short Wave Data Population - DN	Dimensionles
7E3	2019	-NLWFA	Long Wave Terrestrial Flux - AN	$W-m^{-2}$
7E4	2020	-NLWFD	Long Wave Terrestrial Flux - DN	W-m-2
7E6	2022	-NFALB	Earth Albedo	Percent
7E7	2023	-nnetr	Net Radiation	$W-m^{-2}$
7E8	2024	-NLWPA	Long Wave Data Population - AN	Dimensionles
7E9	2025	-NLWPD	Long Wave Data Population - DN	Dimensionles
			Nimbus-7 ERB Miscellaneous Parameters	Δ.
7 F4	2036	-solin	Average Solar Insolation - Daily/Monthly World Grid	W-m ⁻²
7F5	2037	-WALBU	Uncorrected Earth Albedo (.2-4 µ m) -	Percent

Refer "FGGE DATA MANAGEMENT PLAN" Appendix II, Appendix A, TABLE I.

TABLE 3-2: N spectral quantity marker (1)

N	Meaning
0	Not to be assigned (gridded data implied)

TABLE 3-3: Time Marker $T^{(2)}$

T(Hex)	Meaning	Fl	F2
0	Indicate the field is instantaneous, e.g. a 500-mb height forecast =	Forecast hour hour (tau)	0
В	Indicate the field is formed from instantaneous values of the same para- meter	Maximum number of orbits contributing to _verage.	0

TABLE 3-4: M level difference marker (3)

M	Meaning
0	Indicates S ₂ and L ₂ are not applicable

- (1) Refer "FGGE DATA MANAGEMENT PLAN" APPENDIX II, APPENDIX A, TABLE II
- (2) Refer TABLE III of the above document
- (3) Refer TABLE IV of the above document



TABLE 3-5: X exception marker (1)

X(DEC)	Meaning
255	Not applicable. The exception marker (x) does not apply for these data or when the value of x is greater than 254.

TABLE 3-6: CM and CD climatology marker (2)

(Month-Hour)

CM	Meaning
00	Not applicable

(Day of Month)

	Meaning
)	
00	Not applicable

- (1) Refer "FGGE DATA MANAGEMENT PLAN" Appendix II, Appendix A, TABLE V.
- (2) Refer TABLE VI of the above document.

TABLE 3-7. K grid-type marker (1)

K		Grid Description
Hex	Dec	
FE	254	2070 elements equal area World Grid composed of 4.5 degree latitude bands starting at the South Pole and with different longitude increments in each band (120 degrees at the poles to 4.5 degrees at the equator) to obtain approximately 500 km x 500 km grid elements

TABLE 3-8. KS method marker (2)

KS	Meaning
241	Field formed by count of number of events
242	Field formed from radiances or sums and differences of radiances in different spectral intervals without solar zenith angle and/or solar insolation correction.
243	Field formed from radiances or sums and differences of radiances in different spectral intervals with solar zenith angle and/or solar insolation correction.
244	Field formed from irradiances unweighted by degree of illumination.
246	Field formed from ratio of irradiances without solar zenith angle and/or solar insolation correction.
247	Field formed from ratio of irradiances with solar zenith angle and/or solar insolation correction.

⁽¹⁾ Refer "FGGE DATA MANAGEMENT PLAN" Appendix II, Appendix A, TABLE VII.

⁽²⁾ Refer TABLE VIII (the above document.

TABLE 3-9: R run marker (1)

R(HEX)	Meaning
FF	Not applicable

TABLE 3-10. Codes for FGGE Data Producers (2) (Extension for N-7 ERB Level II-C)

Code Figure	Meaning
0031	Level IIIA Data (WMC Washington)
0032	Level IIIA Data (WMC Moscow)
0033	Level IIIA Data (WMC Melbourne)
0331	Level IIIB Producer l
0332	Level IIIB Producer 2
2000	Level IIC ERB Data (U.S.A. Experi-
	mental Data Producer)

⁽¹⁾ Refer "FGGE DATA MANAGEMENT PLAN" Appendix II, Appendix A, TABLE IX.

⁽²⁾ Refer TABLE XI of the above document.

4. SHIPPING LETTER DESCRIPTION

The shipping letter of a FGGE/ERBM tape is the printout of the ERBM-DP Program with option 0. There are five major parts in the shipping letter.

The first part contains information on the tape identifier, slot number, and the printout option.

The second part contains the information on the characteristics and the contents of the tape.

The third part contains tables describing parameter definition, time, grid, method, and data procedure markers.

The fourth part contains the grid information.

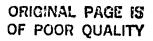
The fifth part contains statistics, the count of the available daily/monthly records and the counts of non-fill data and non-zero populations for 27 parameters. A sample shipping letter is included in the following pages.

ORIGINAL PAGE 19 OF POOR QUALITY

	ERB-H-DP FROGRAM

	PAGE TARE MALLOO
	TAPE DESIGNATOR UALLOO
	PRINT LEVEL 0
	SUMMARY PRINTOUT # ON RECORD MEADER PRINT # OFF
	DATA DUMP (FLOATING) = DFP SCALED DATA DUMP (INTEGER) = DFP
	SCALED DATA DUMP (MEX) OFF
END FILE 1 -	TEST FILE: 250 BLOCKS. 0 1/0 ERRORS. 0 DATA ERFORS
END FILE I -	TEST FILE: \$30 DEDCKS: \$ 170 ENHORS! \$ DATA ENHORS
iape_Headre:	FGCE 2C 20 00 781 1 160 0 781 1 301 8 00 42 40 50 50 42 1 20 4 4 4
	0123450789=!> STUVHXYZ .)- JKLMMOPQR+';+ ABCDEF GH [.)_<
	SINARY DATA: ODO PARTTY
	HASA / GODDARD SPACE FLIGHT CENTER U.S. A.
	FDR# AT (1060A4)
	THIS TAPE CONTAINS SELECTED TERRESTRIAL PARAMETERS FACH THE HIMBUS-7 Earth radiation budget experiment.
	PROCESSED FOR FGGE ON: MON MAR 22.1982
	SCIENTIST: GARY N WELFORD Address: Nasa / Goddard Space Flight Center
	CREENSELT: MARYLAND 20771 UNITED STATES OF AMERICA (U.S.A.)
	Grando de Arbinon (Godano)

· · · · · · · · · · · · · · · · · · ·	THIS TAPE FOLLOWS THE FGGE LEVEL-3 FORMATS INSTEAD OF THE LEVEL-2 FORMATS.
	MARNING: THE FILL FLAG FOR THE ARRAY OF PACKED INTEGERS OF I IS DEFINED
	AS THE VALUE 5'10000000000000' = X'6000' = -32766. THE USER'S PROGRAM SHOULD CHECK FOR THIS FILL FLAG -BEFORE-
	UNPACKING THE UTITY AS THE UNPACKING PRODUCES UNPRECICTABLE RESULTS WHEN PERFORMED ON THE FILL PLAG.



			0.480	TABLES S PARAMETERS	5 I		
	····		(EXTENSI	CN FOR N-7 E	SO LEVE	r (I-c)	
	MUMBER 48 DEC ADUR . PARAMETER NAME						
HE X	DEC	ADDR .	*****	UNIT			
700	20 00	-ERÐ SU	N-7 ERB REI	FERENCE SURF	ACE UPP	ER TRCFOSPHERE	4
70.1	3001		(DAILY AND	PONTHLY GORE	D GRED	5)	
702	2002	- MPOPO	DATA POPUL	ATI CH-ASCENDI ATI CH-DESCENI	ING NO	DE (DN)	DIMENSIONLESS
- 70 2	2003 2004	- W_ WFA		TERRESTIAL FI TERRESTIAL FI	111	V	#/(M++21
70 € 70 €	2005 2006	-CMR LA	COMPUTED M	AXIMUM REFLEC AXIMUM REFLEC	CTED EN	ERGY (.2-4UM) - A ERGY (.2-4UM) - D	N W/(M++2)
70 7 70 6	2007	-CMR JA	COMPUTED M	AXI HUM REPLEC	TED EN	EFGY (.7-3UM) - A EFGY (.7-3UM) - O	N W/(M+#2)
— 7 0 š	_20.00_	-REELA	DEFLECTED_I	ENERGY (2-4U)	UAA	Chd1 (8) - 30H) - 0	
700	20 10 20 11	-RFE JA	REFLECTED (NE RGY (. 7-3U)	H) -AN		A\(\(\phi\) \\(\phi\) \\(\phi\) \\(\phi\) \\(\phi\) \\(\phi\)
 70 C 70 D	-2012- 2013	- WALB 1	EARTH ALBEI	ENERGY (#7~50) DC(•2~4 UM)	41-DN		PERCENT
70E	20 15.	- WALB2	EARTH ALBEI	DCL ,27UMI			PERCENT
750	20 16	- WAE TR	NET RADIAT	ICN		•	W/(M+2)
				FROW FIELD OF MONTHLY WORL			
-7E t	2017	-MSHPA-	-SHORT-WAVE	"DA"TA"" Pひ押ひにA1	11-CH	At-	DIM EN 9-10N+ 99
78 2 78 3	20 1 0	-NSMPD -NLWFA	LONG DAVE	OA TA POPULAT TERRESTIAL FI TERRESTIAL FI	UX - A	DW N	DIMENSIONLESS
7 <u>E</u> 4 7E 6	2020 2022	-NLMFD	LONG WAYE	TERRESTIAL FL DC	ם - אח	×	PERCENT
78.7 78.6	20 24	-NL WPA	LONG MAVE	DATA POPULATI	ION - A	N	DIMENSIONLESS
76 9	2025	-NEWPD	LONG WAVE (DATA POPULAT	ION - D	N	DIMENS TONLESS
7F 4	20 36	- 50L IN		LAR INSOLATIO			M //144 4 5 1
7F 6	20 37	- WALBU		EARTH ALBEI	00 (. 2-4)	UPI - MONTHLY	W/(M++2) PERCENT
							
			(EXT	TABLE TIME MARKE ENSION FOR N	7 74	BITS)	
Ť			MEANING			P1	F 2
	END	CA TE 5 T+	E FIELD 15			0 AY 5 - U5 (FD	0- 0F-YEAP 6
	TO C	BTAIN A	ÆRAGE OR NO	SAME PARAMET		IN AVERAGE	USEC IN AVERAGE
	DAYS	5.FL 15 (SED TO I HOL	CATE THES			
	NTME	SER . AND.	TE THE AVER	AGE APPLIES '	T.O		
			T NUMBER.				
11	IND I	CATES TH	E FIELD IS	FORMED FROM A	A.	MAXIMUM NUMBER CF	0
	SAS	PARARET	ER.	***************************************		OPH ITS CCM = -	
			· · · · · · · · · · · · · · · · · · ·			ALEUTING TO	·
12	IND I	CATES TH	E FIELD IS	FORMED FROM		DAYS USED EN	O OF YEARS
	THE	SE OTHER	TER FIELDS	IELDS (S		AVEFAGE-OR	USED IN AVERAGE
	FOR H	IED FROM	A NUMBER OF	FIELDS OF			
	OP N	IDRHAL VA	LUES. IF	THE POP DAYS			
	P 1 1	is used t	TO INDICATE	THIS NUMBER!			
	AND	IF THE A	VERAGE APPL	JESTCA			



ORIGINAL PAGE FS OF POOR QUALITY

	K GRID-TYPE MARKER (8 BITS)
	HEX DEC GRID DESCRIPTION
	FE 284 2070 ELEMENT EQUAL AREA WORLD GRID 485 DEGREE- LATITUDE-BANDS STARTING-AT THE SOUTH POLT AND WITH DIFFERENT LONGITUDE INCREMENTS IN BACH BAND(120 CEGREES AT THE POLES TO 4-5 DEGREES AT THE EQUATOR) TO COTAIN APPROXIMATELY SOOKH & SOOKH GRID ELEMENTS.
	KS METHOD MARKER (8 EITS)
	(EXTENSION FOR N-7 ERB LEVELE II-C)
	K 5
	241 PIELD FORMED BY COUNT OF NUMBER OF EVENTS: 242 FIELD FORMED FROM RADIANCES OF SUMS AND DIFFERENCES OF RADIANCES 3M DIFFERENT SPECTRAL INTERVALS WITHOUT SCLAR ZENITH MIGGE ANGLOR
	SOLAR INSOLATION CORRECTION. 243 FIELD FORMED FROM RADIANCES GR SUMS AND DIFFERENCES OF RADIANCES 1M DIFFERENT SPECTRAL INTERVALS WITH SOLAR ZENITH ANGLE AND/OR
	SOLAR INSOLATION CORRECTION. 34 BIELD BORNED BORN IRRADIANCES UNWEIGHTED BY DEGREE OF ILLUMINATION.
	245 PIELD PORMED PROM TRRADIANCES WEIGHTED BY DEGREE CF ILLUMINATION:
	246 FIELD FORMED FROM RATIO CF I BRADIANCES WITHOUT SOLAR ZENITH ANGLE AND/OR SOLAR INSOLATION CORRECTION. 247 FIELD FORMED FROM RATIO CF I BRADIANCES WITH SCLAR ZENITH ANGLE AND/OR SOLAR INSOLATION CORRECTION.
	TABLE XI CODES FOR FAGE DATA PRODUCERS (SXTENSION FOR NOT GRB LEVEL II-C)
	CODE FIGURE . MEANING
	DO21 LEVEL ILLA DATA (DMC WASHINGTON)
	0032 LEVEL IIIA DATA (MC MELBGURNE)
	0331 LEVEL III PRODUCER 1 0322 LEVEL [10 Producer 2 2000 LEVEL IIC ERB OATA (U.S.A. EXPERIMENTAL SATELLITE CATA PRODUCE 2000 LEVEL IIC ERB OATA (U.S.A. EXPERIMENTAL SATELLITE CATA PRODUCE
	2000 LEVEL 11C ERB DATA (U.S.A. EXPERIMENTAL SATELLITE CATA PRODUCT

ENC FILE 2 -	TAPE HEADER FILE: 4 BLOCKS: 0 1/C EPFCRS

ORIGINAL PAGE IS OF POOR QUALITY

	MERIDIAN AND	CONTINUE			ERS_INCREASE WESTWARD FROM THE 0.0 D
			O'T NCREASE		THE ADDACENT CATTIOUS BELT TO THE NO
	TARGET NO.	LATITID	LIMITS	LENGLT	
		<u>PGLE</u>	-65+6		
	4-12	85.5	81 . 0	40.0	
	13-28 29-48	81 · 0 70 · 5	76.5	15.0	
	49-78 79-114	72.0	67.8	12.0	
	115-154	63.0	58.5	9.0	
	155-199	50.5	54 • 0	8.0	
	246-307	49.5	45.0	6.0	
	308-367 368-427	45.0	40.5	5.0	
	428-499 500-571	36.0	31.5	5.0	
	572-643	27.0	22.5	5.0	
	644-715 	22.5	18.0	5.0	
	796-275	13.5	9.0	4.5	
	876-955 950-1035	9.0	EJUNTUR	4 • 5	
	1036-1115	EQUATOR	4 • 5	4.5	
	1196-1275	9.0	94G 13.5	4.5	
	1276-1355	13.5	10.0	4.5	
	1426-1427	22.5	27.0	5.0	
	1500-1571	27.0	31.5	5.0	
	1572-1643	31.5	36.0 40.5	6.0	
	170.4_1763	40.5	-95-0	۵ مکــــــــــــــــــــــــــــــــــــ	
	1764-1823 1824-1871	45.0 49.5	49.5 54.0	6.0 7.5	
		56.5	63.0	9.0	
	1917-1956 1957-1992	63.0	67.5	10.0	
	1993-2022 2023-2042	72.0	72.0	12.0	
	2U4 3-2058	76.5	01.0	22.5	
	2059-2067 2066-2070	81.0 85.5	85.5 POLE	120.0	
	2000-2010				
					4.0 ETROOM
IC FILE 3 - GRID DES	CRIPTOF FILE!		BLOCKS.	9 17	/O EPRORS

2002 POPI WFOF — 6N 2004 L.W. TERR -FLUN WFOV-DN 2005 L.W. TERR -FLUN WFOV-DN 2005 MAX REFL -ENERGY (-2-40M)-DN 2007 MAX REFL -ENERGY WFOY (-2-40-DN 2007 MAX REFL -ENERGY WFOY (-2-40-DN 2007 REFL -ENERGY WFOY (-2-40-DN 2011 REFL -ENERGY WFOY (-2-40-DN 2012 REFL -ENERGY WFOY (-2-40-DN 2013 REFL -ENERGY WFOY (-2-40-DN 2013 REFL -ENERGY WFOY (-2-40-DN 2013 REFL -ENERGY WFOY (-2-40-DN 2014 ALEECO WFOY (-2-40-DN 2015 REFL -ENERGY WFOY (-2-40-DN 2015 REFL -ENERGY WFOY -DN 2016 S.W. POD -NFOY -DN 2017 REFL -ENERGY WFOY -DN 2018 REFL -W. TERR -FLUN WFOY-DN 2018 REFL -W. TERR -FLUN WFOY-DN 2019 REFL -W. TERR -FLUN WFOY-DN 2010 REFL -W. TERR -FLUN WFOY-DN 2	000000000000000000000000000000000000000	000000000000000000000000000000000000000	2002222222222222222	000000000000000000000000000000000000000				000000000000000000000000000000000000000	900000990009900080999			OF POOR QUA
L.W. 7ERR OFLUX BPOV-AN L.W. 7ERR OFLUX BPOV-AN MAX REF. ENERGY(.2-4.M)-DN MAX REF. ENERGY(.2-4.M)-DN MAX REF. ENERGY(.2-4.M)-DN REP. ENERGY (.2-4.M)-DN REP. ENERGY BFOV(.2-4)-DN REP. ENERGY BFOV -DN L.W. FERR OFLUX BFOV-AN S.W. PODP NFOV -DN L.W. TERR FLUX BFOV-AN R. EEDU WFOV - AN R. EEDU WFOV -	DODODODODODODO				200200000000000000000000000000000000000			000000000000000000000000000000000000000	DD000000000000000000000000000000000000			OF POOR QUA
	000000000000000000000000000000000000000			000000000000000000000000000000000000000				000000000000000000000000000000000000000	000000000000000000000000000000000000000			OF POOR QUA
MAX REFL SENERGY (2- 4:M - DN MAX REFL SENERGY (2- 4:M - DN MAX REFL SENERGY (2- 31- DN REFL SENERGY WFOV (2- 4)-DN LAW TERR FLUX WFOV DN LAW TERR FLUX WFOV	220000000000000000000000000000000000000			000000000000000000000000000000000000000	200220000000000000000000000000000000000			000000000000000000000000000000000000000	00000000000000000000			OF POOR QUA
REFL								000000000000000000000000000000000000000				OF POOR QUA
REFL. ENERGY WFOV(6.2-6)-AN REFL. ENERGY WFOV(6.2-6)-DN REFL. ENERGY WFOV(6.2-9)-DN REFL. ENERGY WFOV(6.2-9)-DN REFL. ENERGY WFOV(6.2-9) AL EEOU WFOV(6.2-9) AL EEOU WFOV(6.2-9) S.W. POD. NFOV - AN S.W. POD. NFOV - AN S.W. POD. NFOV - AN REFOU WFOVE AN REFOUR AND AND REFOUR A	000000000000000000000000000000000000000			000000000000000000000000000000000000000	000000000000000000000000000000000000000			000000000000000000000000000000000000000	000000000000000000000000000000000000000			OF POOR QUA
REFL SENERGY WEOVE 7-31-AM REFL SENERGY WEOVE 7-31-AM REFL SENERGY WEOVE 7-31-AM REFL SE OW FOVE 7-31-AM REFL SE OW FOVE 7-31-AM REFL SE OW FOVE 7-31 NATION WEOVE AND	DCC00000000000000000000000000000000000		!	000000000000000000000000000000000000000	D000000000000000				20000000000000			OF POOR QUA
### FEELO # #FOY #FOY # FOY #	600000000000000000000000000000000000000							000000000000000000000000000000000000000	D#00000000000			OF POOR QUA
ALEEDO WFOV (-27) ALEEDO WFOV (-27) S.W. POP NFOV -AN S.W. POP NFOV -AN S.W. POP NFOV -AN L.W. TERR FLUX HEDW-AN-EDM L.W. TERR FLUX HEDW-AN-EDM L.W. POP NFOV -AN NET RACIATION MFOV NET RACIATION MFOV ALEEDO WFOV -AN ALEEDO WFOV				000000000000000000000000000000000000000	000000000000000000000000000000000000000			000000000000	000000000			OI POOR QUA
ALECO W FOV (*7-3) MET TACLITION WEGG S.W. PODP. NFOV - AN S.W. PODP. NFOV - DN L.W. TERR FLUX NFOV-DN L.W. TERR FLUX NFOV-DN ALECTO NFOV AN ALECTO NFOV AN L.W. PODP. NFOV AN ALECTO NFOV AN L.W. PODP. NFOV AN DAY @	000000000000000000000000000000000000000							0000000	0000000000			OI POOR QUA
	000000000000000000000000000000000000000			000000000	000000000			0000000	****			OF POOR QUA
HFOV-AN 45M HFOV-AN 45M HFOV-AN 45M HFOV-AN 45M AN WEDV-AN HFOV-AN HFO		'						200000	0050000	00000000		ו פטטא עטי
HFOV-AN-EN D D D D D D D D D D D D D D D D D D D	00000000			0000000				000000	00000	000000		POUR QUA
L. W. IERRAELUX HEDV-AN+DN AL ERON NFOV AL REDO NFOV AN L. W. POR-NHEW AN L. W. POR-NHEW AN AV G. SCI. AR IN SOLLATION AL EEOU WFOV! Z= %! UNCUHRECTED DAY @ DAY W	00000	'		00000	000000		.	0000	E0000	10000		OOK QU
NFDV AN ON CAN ON CAN ON CAN ON		'	7		00000			990		9990		OR QU
L'AUGODINE DE L'AUGURRECTED 0 REEUU BFOVI -2-41 UNCURRECTED 0 DAY 9 POPI BFOV - AN POPI BFOV - AN L'AUGUR CF DON L'AUGUR		'		-	900			•	•	900		K QU
LATION LA	600	1		000	• • •			0	•	0 c		QU
G-SOLAR INSULATION EEOU #FOY: 2-47 URCUHRECTEU U DAY # P: WFOY - AN P: WFOY - AN P: WFOY - BN B: TERR.FLUX WFOV-AN E. TERR.FLUX WFOV-AN		1	~	3				5	e		0 27	U
DAT # 17 B		•	~	1				5	 - -	0 0		•
			,		•	•	•	•				AI
a die	X	20 21		2		M	ZZ	- KG	727	36		L.í
	96		## c	00			99	-	-		_	ן ו
•	0	-	, 000 4	0	·				, ,	-	-	
	Þ		-	>	-	-	> 0 :		-		• •	
MAX REFL. CENERGY (-2-4UM) -DN	06			O.	• •••	. •••		-			-	
MAK BED ENERGY (7-31-68						-	-	<u>:</u>	+		:	
ANTA MENTANCE AND ANTANCE ANTANCE AND ANTANCE AND ANTANCE AND ANTANCE AND ANTANCE AND ANTA	• • •	- wi -		• • •	. est es		000		,.	0		-
THE PERSON STOVE OF THE PERSON STORES AND TH	0	_	_	0	-		1	≪>		0	-	!
REFL. ENERGY MFOV (. 7-31-0H	0	-	**	0		-	-		 	•	 	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	90			96			>o		d			
ALFEDO WEDVIAT-31	9	-	-	e.	-		-		emo-c:	D C		
SET RADEATION WHOW	3 0-			>0		10 10 1)	p ees 1	क्ष करते व		· •• •	
4			- -	9.	 	\		┥.	-	-	<u> </u> .	1
2019 L.S. TERRETTIN NEOV-AN BLANCE CONTROL OF CHARACTER STREET OF CHARACTER STREET STR	00	= -		90			> o			> 6 0		
THE TERRITOR NEDWARDS				0	-	:	-	•••		-	, 	
ALGEBO NFOV	Dg			00	=	, , ,	> 0* 	-	, ,	> *		
L - W - POP - NEOV - AN				00	-	i i ime a			: 		,	
L.W.POP.PHFUV - UN	•	-	-	9	-		9		-			ł

15 16	017	N	'n	, ,,,	, (v	1	N	m	NI) . 	70	2 0	200	310	1202	121	200	3	7		7 6	1206	2070	0	31 MONTHLY	C		2	9000) K	9	£ () =	ָ קריי	#D	~ ·	D (- ^	20) 	7	2	٥. د	D 6) C	2010	0
2	0	D (> C	c	a	o	0	•	0) (>6	> 0	> c	·a	0	0	0	D	0(>(•	•	•	0	90	14) () () ()	642	9 to 10 to 1		642	270	7 6	542	100	000		₽ (\ > @ ()	1000 1000 1000 1000 1000 1000 1000 100	162	• B		-	٠, ٠	**	1568	10
m 	•	D (> @	•	• 0	q	0	•	Φ(> (•	•	96	•	0	0	0	P	P	•	•	> q	0	•	P	4	000	+	0.0		9	499		601	00	80 (80 () e) E	0	2 12	2	Fi	8	9	673	6
7	0	D (> C	C	0	0	0	ò	0	>	> (> 0	> 0	9 (0	0	0	0	•	0	> 6	•	> d	0	O	8		7.7	193	77	7.4	. E	124	F 6	- 0	2	4	2	7 F	71	y ==	4 [4	-	4	*	**	7	•
	0	0 (> 0	,	•	C	0	0	0)(> (> 0	> 6	•	0	0	0	0	00	>6	>	>	0	0	27) C		0	> C	, 0	0	> (> C	0	0		> C	AC	> C	į	0	0	01	Þ	•	6
2	•	0(> E	•	•	•	0	• ¦	0	>(0	9 6	> C	> 0		0	0	0	•	>	•	9 G	•		. 26				492					-				-			_	-	-	•	-		•
0	0	0	> 6	• C	, C	• •	0	i	0	5	D	> <	> 0	•	0	0	0	o ;	01	>(•	ÞC	0	0	8	19	7 4		10 m	400	1 P	245	400	0 4 9 4 U 4	643	277			200	֓֡֡֡֓֓֓֓֓֡֡֡֞֜֜֡֡֡֓֓֓֓֡֡֡֡	1236	83	5	2	17 P	636	6
•	•	0 (> (• •	o	0	0	0	0	Þ	ם י	> (•	•	• d	٥	0	o	9	Drie	•	D 6	6	, O	*≈		77	503	477	250	200	. A 77.	204	***	17	543	10	10 th	***	200	16.22	1754	400	1535	D04 #	44	20 70
~	0	0	7	> (> C		0	•	0	D (P (•	•	q	0	Ö	0 : :	0 (B) (5(D C	a	0	23		_		0	1		į							-					1		1	
.•€	0	9	20	> <) C		0	9	0	D !		D (> 4	> C	9	0	0	•	•		3	0 0	6	10	22	•		- 1	526			- 1			•												
₩.	7	•	96	> =	> =		•	ا	•	•		•	•	> C		•	•	•	•	6 = (•	.	8	.0	21			4	90	-		į			١		ļ		ľ	-	-	-	-	~		-	,
•		0	0 5	> <	> 0		0	1	0	0		9 (> (3 C	9 6	0	0	• :	0			D 6	•	0	200	fi	n	"	4 7	ı	•	4	6 7 ·	4 1	•	ID.	en:	ın ı		-		<u> </u>	-	10	-	-	
m													1							;		.				•			0			İ					i		Į					i			
· N		•	D S	> 6) C		•		0	O {		D (> c	96		0		.		D 1	. .		10	-	! !! ! !!	D 0		185	56	00	#2 #2	661	100		177	12	24	7	200	7 2 2	168	7	1831	33	101	207
		0		•) E		••		0	0		0		96	•	0	•	0	0		9	00		,,,	1.0			180	1 4 5	100		192	560	24		172	271	7				177	36	1785	196		2630
DAY #	PODI: WFOV - W	POPE WFOF - DN	L. W. TEPR FLUX WEDV-AN	TERM OF UN MEDA	TANK THEFT SECRET SECRET	And Andreas	MAX MET SENENCY (-7-11-10)	DREAL FINERCY - KFOV	PER ENERGY WFOVI . 2	REH SENERGY BFOY (. 7-31	LE =1 SENEBCA . BEDA(SEE	ALBECO WFOV	A PEDO	ALEECO WROVI 67-	S Z DOD NEDV	- ACTAL COCK A. A.	I .M. TEFR .FLUX	1 2 2	L. W. TERR .FLUX	ALREDO MEDY	NET RADIATION		A STANCE OF THE	ALBEDO WFOV(.2-4) INCORRECTED	NAV A		POP: #FO% -		L.W.TERR	MAX DEFL SENERGYL.	THE PERSON OF TH	MAK MEN SENEDGY	PER ENERGY BEON	REFL . ENERGY MEDV(12-	CHECK CONTROL BYONE 17.	2-48	ALEEDO-WFDV(AL PEDO MITOV	2	S.K. POP.NFOV	900	1	L.u. TERR.FLUX	A EE DO N FOY	NET RACIATIO	<u>.</u>	
	88	2002	2003	2002	2002	3		2000	2010	2011	2012	2013	2014	201	200		2000	-2020	202	2022	2023	2024	202	2030			200	000	2002	200	2006		2002	2010	1000	202	2014	2015	2016	201	201	2000	202	202	202	2024	202

のでは、「「「「「「「」」」というでは、「「「「」」というできます。「「「」」というできます。「「「」」というできます。「「」」というできます。「「」」というできます。「「」」というできます。「「」

Appendix A. Abbreviations and Acronyms

A.N.: Ascending Node

BPI: Bits per Inch

D.N.: Descending Node

EOF: End-of-File

ERB: Earth Radiation Budget

ERBM: ERB MATRIX

FGGE: First GARP Global Experiment

GSFC: Goddard Space Flight Center

NASA: National Aeronautics and Space Administration

NFOV: Narrow Field of View

NRZI: Non Return to Zero Inverse

S.W. Short Wave

WDC-A: World Data Center-A

WDC-B: Word Data Cener-B Moscow

WFOV: Wide Field of View

WMC: World Meteorological Center

MTI

Appendix B. Sample Run Printout

INPUT >>NEW MXTZ SDEC NO TI ** MACNING - TAPE FEARES 11W ACTUAL STER - 78	0 1130031 SO MC AA03201-2 ERB 4 11MC COFS NOT MATCH DATA TIME 78 327 0: 7: 7 78 334 0: 0: 0	8ACC 10 1PC START 1978 320 004048 ID	0 1978 334 022350 GF!! 1983 049 050614
FILE UPDATED			
LIST FOR NIMEUS FGOMAT	AA		
1.2018 AATOTHI 787379; NXT2 AA83201 787379; L2619 AATOTH2 787353; 1.2614 AA30000 757 79;	0 76/334; 3 0 78/134; 3 3 76/164; 3	1978 HDV 16 0: 0: 0 1978 HDV 3 1978 HDV 3 1978 HDV 3 1978 DLC 16 0: 1: 1 1978 DEC 3 1979 HAR 2	30 0: 0: 0 30 0: 0: 0
CF CATALOGO	4 TAPES.		
			ORIGII OF PO
			VAL PAGI
			E IS

(A)

>>>78 MOV - 78 MOV					
041A -1-15-10-02-03E-03ED1 76 NDV 16 - 78 NDV 30					
MOUNT SLOT # PATZ					
INT TAPE_>>>BL6049	1 1 1 1		 		
OUTSIDE EXPECTED PANGE: PARAMETEP= 6	TAPGET= 17	SCALED VALUE=	3168	VAL UE=	0.3167998E 03
FILE THE C TO VAZDAY HONZDAY PARK FILL RANCE SCALE	N AVG	- NATH - NHAX	BIAS	SLOPE	
	3 0-158400E D	3 0 3168	0.0	10.0	
DATA VALUE DUTSION EXPECTED PANGE: FARAHETER= 10	TARGET= 16	SCALED VALUE=	2306	VALUE	0.2006000E 03
** DATA VALUE GUTSIDE EXPECTED MANGE: PARAMETER* 10	TARGET# 17	SCALED VALUE=	2252	VALUE=	0.2252000E 03
FILE IMPLE TO VAYDAY MONYDAY PARM FILL RANGE SCALE	N AVG	HAIN NHAX	BIAS	SLOPE	
19 31 78/320 81/26 10 1939 3 0	7 0-1126006 03	3 0 2252	9	10.0	
** DATA VALUE GUTSIDE EXPECTED RANGE: PARAMETER= 19	TARGET# 1162	SCALED VALUE=	970	VALUE-	0.97000005 02
INREC 10 VR/DAY MON/DAY PARM FILL RANGE SCALE	H AVG	NOIN NAM	BIAS	SLOPE	
19 31 76/320 11/16 19 762 1 0	0.2094008 03	3 976 3218	9.0	10.0	
OR DATA VALUE QUISIDS EXPECTED PANGE: DARAMETEDE 22	IARGE I . 1 AA	SCALED VALUE	1133	VALUER	0-1132050F #1
INSEC ID YR/DAY HOH/DAY PARH FILL RANGE SCALE	S AVG	MAIN HMAX	BIAS	SLOPE	
22 31 78/327 16/16 22 885 1 0	0 3.615300E 00	98 1132	0.0	1000-0	
60 DATA VALUE GUISIDE EXPECTED NAMGE: PARAMETERS 23	TARGET = 104	SCALED VALUES	-2504	VALUE -	-0.2204080E 45
AS DATA VALUE GUISIDE EXPECTED RANGE: PARAMETERE 21	TARGETM 184	SCALES VALUES	-2910	VALUES -	-0.2910000E 3.
DATA VALUE CUISIDE EXPECTED RANGE: PARAMETER= 23	IARGET# 1973	SCALED VALUES	-2053	VALUE= -	-0.20530000 63
SO DATA VALUE GUTSIDE EXPECTED HANGE: PARAMETER= 23	TARGET = 1974	SCALED VALUE=	-2044	1	-0.2044000E 03
* DAYA VALUE BUTSIDE EXPECTED RANGE! PARAMETER= 23	TARGET = 2007	SCALES VALUE	-2124	VALUE: -	-0.2124000E 03
FILE INDUC 10 YRZDAY MORIZDAY BARM FILL BANGE SCALE	ANG	MIN NHAX	BIAS	21 00	
23 38 78/320 11/16 23 1657 7 0	8 - G. 563500E 02	2 -2910 1783	0	0.01	
DUISIDE EXPECTED PANGE! PARAMETER= 10	1ARGE 1 = 21	SCALED VALUE	20 30	VALUE:	0.2030000E 03
FILE THREE TO VAZGAV HENZDAV PARM FILL HANGE SCALE	AVG	- NMIN NHAX	BIAS	SLOPF	
36-31-784321-1141810-1928107	0-101500E.03	3	9.0	10.0	
** DATA VALUE OUTSIDE EXPECTED PANGE: PARAMETERS 22	1496ET= 1907	SCALED VALUE"	1246	VA UE=	0.1245999F 01
INNEC 10 YR/DAY MON/DAY PARM FILL RAKJE SCALE N	AVG	NMIN NHAK	BIAS	SLOPF	
48 31 78/321 11/17 22 321 1- 0 0	0.672999E 00	196 1346	8.0	1000.0	
RE DATA VALUE DUISIDE EXPECTED RANGE 1. PARANETER= 22	TARGET 2032	SCALED VALUES	-2044	VALUER -	-0-2044000E 01
FILE INNEC ID YR/DAY MON/DAY PARM FILL RANGE SCALE N	AVG	HHIN NHAX	BIAS	St. OPF	i
78/321 11/17 23 509 1 n	10 3000006 °U- 8	1 -2044 1848	0.0	10.0	
** TATA VALUE CUISIDE EXPECTED HANGE (PARAMETERE - 6)	TA4CFT= 2915	SCALED VALUE	5413	VALUE	0.5412998F 03
EILE INDEC-ID YRZDAY MOHZDAY. PABN FILL DANGE SCALE . N	AVG	NAIN - NHAX	BIAS	34 OPE	
5u 3t 78/322 11/16 4 1885 1 n 8	3.35150NE 03	1617 5413	0.0	0.01	
PANGE: PARAMETER= 6	TARGET 16	SCALED VALUE=	3151	VALUE	0.3150999E 03
FILE INMECTO VAZEAV HOMZAAY PARK FIEL RANGE SCALE TR	AVG - 1	NHIN THREE	- BTAS -	SLOPE	
Section 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					

'''' I	
.	

2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	14	1
1		
2 2 3 3 MANANTA		
30 30 00 00 00 00 00 00 00 00 00 00 00 0		
A THE STATE OF STATE		
17 18 19 20 20 00 00 00 00 00 00 00 00 00 00 00		
18 19 20 2 21 22 23 24 25 26 27 28 25 30 31 MONTHLY (19 0) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
18 19 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
19 20 21 22 23 24 25 26 27 28 25 30 31 MONTHLY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
8 19 20 21 22 23 24 25 26 27 28 25 30 31 MONTHLY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		PR
		8 19 20 21 22 23 24 25 26 27 28 25 30 31 MONTHLY
	C.S	00
	c ~	

L-WOTFRFEFLUX WPOV ANTON AND SOLUX-WEDV AND SOLUX-WEDV AND SOLUX-WEDV AND SOLUX-WEDV (-2-4)		;		:		!			!	i					
j		00	20	20	70			~q	00	70	00	c a	CC		
V.		000	000	001	00			C C (e c	00	00	00	00		ļ
NON NO	!	000	ec	00	00				• 06	00	600	•00	•00		
S COR	0-0	000	r-9	 o=q	0-0	000	0-0	r-0	000	E-0	p=q	r-c	900		
COUNT OF NON-FILL DAT	A AND NON-Z	-ZERO	POPUL	ATION	S	OR 197		NOVEMBE	lie.						
	e.	n	•	 m	•		0	2	=	12	2	=	15 16		
CV - AN		00	ce	ļe o		!		00	100	00	00	00	1		
P.FLUX BFUV-DN L.ENFRGY(.2-4UM)-AN		00	000	000	620			000	• 00	+00	00		,		
Z 3 2		oc.	o c c	Pcc	 			600	; 1000 	00	DC (00			
ERGY MF CV (+2-4)-AN		 	00	000	00			00	00	00	00	00	,		
TERGY MFDV(67-2)-AN TERGY MFDV(67-3)-DN MFDV(62-4)		000	600	000	ء ده			600	000		•00		1		
##OV (•2-• 7) ##OV (•7-9)		000	coc	 	000	İ		000	000	DC:	P 0	pc.	1		
ONFOV -AN		00	00		900	1			00	00	00	00	1	1	
PREFLUX NEDV-BN 20.FLUX NEDV-DN 20.FLUX NEDV-AN+DN		000		000	000			+~		000	000	000			
i		000	၁၄ ၄	i Duc	000	<u> </u>	; 	bne	, 	000	 	000	,		
OWEDV LYCHODAILY		; 	: : :	900	900		 		900 ;	 	00	000	1		
THE STATE OF THE S	000	000	000	000	000	6 00	000	Poci	-00	00	•00	000	000		
1 25	;	999			000	ì		000	000	000	006	000		0	
Nº OV	: :	00	900 ;	• 0 0 0	רפו.	;		900	: : !	00	00	000		F	
A ALBEDD MFOV (.2-4) UNCORRECTED	:	00	.	00:	! :			000	00	-00	00	oc		INAL OOR	
	67		4	01	io io	i : T		1	2				1 0 4	PAG	
Z.Z	189 199 182 185 189 199	6500 :	\$2.6K	6 4 9 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ស្វីស្វីស្វី ស្វីស្វីស្វី ស្វីស្វី	80 4 10 4 0 4 0 4		6 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			=0-0 00-0	2000	0 2042 0 2042 0 2042 0 2042	.ITY	1
V(. 2 - 4 UP	+ :	004	\$ £ 8		900 1000 1000 1000 1000 1000 1000 1000	59	904	492	ì	() (*) (!)	56	42 30	0 2045		
L.ENFRGY(-7-3)-CT ERGY WF CV (-2-4) -AP ERGY WF CV (-2-4) -AP		0000	5000	6 15 6 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6	្ត ១១១១១ ១១១១១	0000 0000 0000 0000	7 5638 7 5638 7 5638 7 5638	6 4 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	, 6000	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	200 200 200 200 200 200 200 200 200 200	10 - E	0 2 0 0		
0V(s.7-31-5		000	門という		988	488	ពេលលេខ	4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		and the thick	1	- 06	0 1970 0 1970		
WFOV BN BN	, an ,		542 594 707 177	-	စ္နက္ခ်စ္တန စုတ္ပစ္သစ္ စုတ္ပစ္သစ္		iυ. ο. δ. ∞.	₽	_	; w Outsider		200	4 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1		
	2			٠		•	•			•		v	9		

		, ,	F 1	1 1					
	v				OF F	OOK	PAGE QUAL		14 T T T T T T T T T T T T T T T T T T T
20100000000000000000000000000000000000	2		-00000					00000	Z
000000000000000000000000000000000000000	2		000000						# ***
22 22 22 23 24 25 25 25 25 25 25 25	2		000000						C doubcocococod
##### N	[]	0000	000000		0000	0000	0000	00000	W #0406=000#000d4
20444000000000000000000000000000000000	2	0000	000000	00000	0000	COOC	0000	species	8 00000N000-0N00F
00000000000000	! !=	00000	000000	00000	0000	0000	0000	90000	2 0000000000000000000000000000000000000
200000000000000000000000000000000000000	9	7 000	000000	60.000	-	nbea	cchor	20000	% dancoccinocod.
02 24 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	cdocd	. ,	90000	9000	0000	0000	700000	s concocconceco
2004/0000000000000000000000000000000000	•	00000	0000000	00000			0000	200000	N 00000000000000
000000000000	-	0 0000	000000	00000	-0000	0000	0000	00000	1 0000000000000000000000000000000000000
40444660000000000000000000000000000000	HBER 6	00000	000000	99999	90090	သင်္ဝဝ		0000000	.N 7040000000000000
237.3 2000 2000 2000 2000 2000 2000 2000	# NOVE	0000	000000	00000	20000	;	0030	000000	- 004-000000000
2411- 24666 247- 2670 2670 2670 2670 2670 2670 2670 2670	8761	edecd	6669505	40000	300 0 0	rebon	10000	000000	6 878176-000-0060-
00000000000000	80	00000	000000			1	,	occoloce	000000000000000000000000000000000000000
22 22 22 22 22 22 22 22 22 22 22 22 22	80 N	-	6669966	doepe	ec o d r	cpec	-		0 776-6-66-66-77
20000000000000000000000000000000000000	ERPOR	0000	999999		0000		6000	00000	- 00000000-05000
z z	ANGE	i		'		; ;		2	
AN+E AN+E	ATA P					:	- ANADA	ANTE IV	z
28 ALMFDD MFDV MFDV 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PDP.NFGV - AN 224 L.W. PFDV - AN	O TO THE	E POP: NFCV - AN 2 POP: NFCV - BN 3 L-W-TERP-FLUX MFOV-AN 4 L-W-TERP-FLUX MFOV-AN 5 L-W-TERP-FLUX MFOV-AN 6 L-W-TERP-FLUX MFOV-AN	MAX FFEL-ENERGY MAX FFFL-FNFRGY MAX FFFL-FNFRGY MEFL-FNERGY MFGY MEFL-ENERGY MFGY MFFL-ENERGY MFGY MFFL-ENERGY MFGY	ALUEDO WFOV(-2-4) ALUEDO WFOV(-2-7) ALUETO MFOV(-7-3) NFT FADTATION "WFOV"	のいいるい	ALCE ADD SAFOY - FAN - F	A L.W. POPLATION C.L.W. TERROFILM C.M.DISP. L.W. TERO O.N.DISP. ALBEDO	31 STD-GOFV-WFT RAD-WFDV 32 N-101SP-G-W-TERF-FELUX NFDV 33 N-D1SP-ALBEDT NFDV 34 STD-GOEV, MET RADIATION NFDV 35 ANTH-ALBEDD NFDV 36 AVG SOLAR INSOLATION 37 ALREDO NFDV	GOAY B C C C C C C C C C

10 S.W.POP. WFOV -DN 19 L.W. JERR.FLUX NFOV-AN 20 L.W. JERR.FLUX NFOV-AN 21 L.W. JERR.FLUX NFOV-AN 22 M.U. EDC. NFOV AN 23 M.T. R. AD IATIOH NFOV 24 L.W. POP. NFOV AN 35 L.W. POP. NFOV AN	-DN NFOV-AN		***************************************			į	1	-	1			٩	d	0	g	q	c	·C		
			G					•	00	00	00	6	0	01	0	0 (0	0		
	L C			1	-	1		-	0	ا ا	اء	0	0	m	-	0	•			
	MFOV-AN+C	z		,				•••	00	•	:01	0	00	•0	• 0	0	20	PC		
	NEOV				!	İ	'	+	0	uko.		A.	0	! ! !	F 143	0	90	20		
	200		-	!	!	!	- ;	70	• • • •	p q	0 0	D G	9 Q	N Q	00	00	0 0	00		
	INCR.DAIL V							6 6	00	e 0	00	60	00	00	00	00	00	•		
	DO FILLY WE	24	1 2					þe	00	00	6	4.	•	6		•	•	•		
	WF OV (-2-6			į	į	•		0	0	. 0	00	i 101	90	90	>0	90	5 0	9		
	AP. FLUX NE	0+N4	z					5 0 (900	00	> 0	50	00	00	9 0	co	00	cc		
	ADIATION N	FOV			İ	1		500	e c	900	oc c	900	900	900	00	900	900	901		
	2-4) UNCOR	RECTED			000	960	200	900	0	•	-0	•	•		-		90	•		
AN EXPECTED	Supreper	OBSEPVE	O NOVEMBER	FRRCR	g-															
•																				
	22	1	320.5		N															
	38	15 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	40000		D T 4															
	38	50.3	316.7			1														
100. 30	12	150.3	335.8																	
6 0° 300°	91	000	316.8																	
	Ç. Ş.	00	309.9		es es															
000	80 CY 60	000	326.00 326.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00		81 an (0	0	
	~ 0	00	203.0															FF	RIG	
	, W. S.	000	242.1		ma													ю	NA	
	200	000	205.2	_		1												RC		
	200	000	215.0	-		į				İ								JU 	A.	
0.1	000 000	600			-~-													ALIT	GE !	
	25	F 0			 				! !									Y	ļ	
	28		0		/ d m	1	: 			i i										
8	25		2.		m.	Ì														
1.0. 403.	91	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	528.0 321.8		- - -] : :	! !		!											
	21	0.00 0.00 0.00 0.00 0.00	356.0			:	i		:		1	 								
2004 2047	200	24.4	307.4		ļ.			!					i							
0. 1.	92			1	, 		1	1	•			İ	: I							
		- O	~ -																	
	100	•	-		_															- 1

7		
ľ	<u>.</u>	4
٠,٦	-	
1	l	

000 000 000 000 000 000 000 000 000 00

EBENIND CANDLE RIN CHECK	
	>

- TORNITAPIN UNITADO 6	
TAPE DESIGNATOR UALLOO	
PRINT LEVEL PRINT LEVEL DAMPER B ON SUMMARY PRINTOUS R OFF	
DATA DUMP (FLOATING) = OFF SCALED CATA DUMP (INTCGR) = OFF SCALED CATA DUMP (HEX)	
PND FILF 1 - TEST FILE: 256 BLOCKS, 0 1/0 ERRORS, 0 DATA ERRORS	
TAFE HEADER: FGEECENOO7811 160078113018	
FURNAT(20A4) 0123456769#1> STUVENYZ.)-JKLMMOPOR**!+ABCDEFGHI.)_< 0123456769#1> STUVENYZ.)-JKLMMOPOR**!+ABCDEFGHI.)_< 0174567 [600 BP] 818487 DATA (100 PARITY	
I BM 360/91 NASA - GOODARD SPACE FLIGHT CONTER	
COMPAINS SELECTED TERRESTP	
į.	
SCIENTIST: GARY N WONFORD AORESS: HASS GREFNELIS MARTLAND 20771 UNITED STATES OF AMTRICA (U.S.A.)	ORIGINA OF POO
FORMATS	
NG: THE PILL FLAG FOR THE ARRAY OF PACKED INTEGERS O(1) IS AS THE VALUE B'1000000000000000 * X'80)3' = -32768* THE USFF'S PRUGAM SHOULD CHFCK FOR THIS FILL FLAG "BEF UNDACKING FRUDUCES UNPREDIPESULTS WHEN PERFORMED ON THE FILL FLAG.	PAGE IS
END FILE 2 - TAPE HEADER FILF: 4 BLOCKS, 0 1/0 ERRURS	
GRID DESCRIPTOR FILE: THE ERB NUMBERING SYSTEM ASSIGNS A.NUMBER, BETWEEN I AND 2010, TO EACH TAPING FROM THE SOUTH POLE. FOR EACH LATITUDE DAND THE LONGITUDE INTERVALS START AT THE O DEGRET WEBES AND PROCEPS WEST BY THE INCREMENTS LISTED. MITHIN FACH LATITUDE DELT THE TARGET NUMBERS WESTWARD FROM THE O. MERIPIAN AND CONTINUE TO INCREASE WITHIN THE ADJACENT LATITUDE RELT TO THE	TAPGES
TAFGET NC. LATITUDE LIMITS LONGITUDE	
1-3 PCLF 85-5 120-0 4-12 65-5 61-0 47-0 14-26 61-0 76-5 22-5 24-48 71-5 10-0	

		ORIGINAL PA	GE 19 ALITY	
				20000000000000000000000000000000000000
00 m %	0 0 0 2 2 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000000000000000000000000000000	O I/O EDFORG	#BHITHLY RECORDS S
# 0 # 0 # 0	######################################	44400000KF000	I BLOCKS.	
6-2004 - 5-4004 	######################################	488677488888888888888888888888888888888	END FILE 3 - GRID DESCRIPTOF FILES US END FILF 4 339 BLDCKS,	DAY 8 202 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 203 PDP WEEK, - DN 204 PDP WEEK, - DN 205 PDP WEEK, - DN 206 PDP WEEK, - DN 207 PDP WEEK, - DN 208 PDP WEEK, - DN

(A)

P

	OHTHL *						ه دين ه			.					4000 4000		>	16	319	319	319	210	231	231	(F	P	272	- L887	32.6	30.	A	LIT	Y		HOW DATE &	1
	F .	000		00	і ро !	ac	000	0	0	· c (90	00) O 6	; ,c	00	00		5	ł	!			ł			1		-	-		.	1	00		!	1	(
	20		+	,,, ad	<u>.</u> _						-			+	 =	-		=	ဂင	-6-	? a	0 0	40	0	00	a F	20	•	- 	C	SO C	6	00		ı	9	1
	52	 !	1		-	====	-	-	i					- i	-		VF MB ER	! 2	00	i	9 CI	00	•	0	90	a o	0	00	90	00	301	0	00	D		25	
	. 28	-i		- E	-							-		, 100			NUA:	. 2		1					1	i							00			200	1
;	N	000	9	90		ac		0	00		:						1978						!		ı			ĺ								5	•
	£			 		7	- es •		ء س) کان د د میر د							FJR	; <u>2</u>							ı	:							90			5 -26	
	2		Ī			-				4 600 (-		1			80	· •														1	c n			14 - 2	
	23 . 2	0 00	•	o 6	D 0	de	000	* 0	Or	00	00	00	01	, 3	00	100	OPULATI	•	00	.	00	00	90) D	00	ao	00	• 0 0	00	, 0 (90	ەن ا	00	0		23	
,	22	 			 	-i		-			-	-				; ••••••••••••••••••••••••••••••••••••	22	, , •	00	D	00	90	90	00	00	o n	20	0:	၁ ೧	, o	-0	0 9	00	0		. 44	
	12	===	•	بي	40) est			-	, 	·	-	em 4				; (0	10	00		00		9	,	00	on.	00	0.	7 0	•	30	00	00	0		31	
9	22	 					.	-	 .	,	; ====================================	 (- - es (N ON A	. •	00		00	00	9	99	pe	ac	· ~ (0	٥ ٦	00	DC .	ا د: ه	6.0	c		- 07	
	Ď	0 00	•	00	C 0	00	000	•	0 5	00	o e	04	01	> 0	00	, 201	DATA	: m	00	6	00		0	9		00	00	0	o C	: C	30	¢¢	00	0		9	
			+				4 00 4	 -	-		-	~		- - 	= 	-	N-F 1LL	~	00	6	÷ 6	00	9	0	D (*)	200	00	0,	e e	9	C.Q.	÷G	00	D		- 18	
	41				! ! !			-	1 mas #	, 444	-	es 6	P 60 .			-	DUNT OF NON	-	00	0	00	00		> 0	b 0	0	00	901	00	00	00	0 6	00	C			
	GAV -8	2011 PORT BECY - AN	DO LONGIERRAFILUX MEDV-DN	35	DJT RAX FFFL FENERGY (STED) - AND SO WAS FFFL FENERGY (AT 3) - 5%	039 REEL FEBERGY RECY(-2-9)	DIS REFLENERGY BECVIOLATION	812-RFFE-ENERGY-WF8V(-7-3) 813 ALBEDO WFOV(-2-4)	5	55	성급	20	20	NN	210	100	ERB-MATRIX	DAY 8			TOWNSTRANSFLUX MFOV-DN The Max reference of the Max		MAX FEEL SHERGEL S-31-CM	9 FFFL.ENFRGY WFUV(.2-4)-A 3 RFFL.ENFRGY WFUV(.2-4)-O	I HEFERENCH WEDV (17-3) PREFERENCH WEDV (17-3)	ALBEDO DEDVE 2-51			SOME PODE NATIONAL MADERNAMES	L.W.TERR.FLUX NFOV-CH	l Løbierpøelux medy-A 2 albedo mpdy						

1034 2342 1004 2342 2042 1004	1976 1976 2018 2012 2012	2070 2070 1992 2070 2070						
		0000000				OF	RIGINAL PA	GE IN
2000000	2000 2000 2000 2000 2000 2000	088-4-086			! !		POUR QU	ALITY
	P. C. C. C. C. C. C. C. C. C. C. C. C. C.	2015 10 10 10 10 10 10 10 10 10 10 10 10 10						
1 1	-	44500440			!			
1 1	-	00000000				, ,		
2222	# 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2		1				
1 1	1 ! 1	55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5						
n opin o in o in	20000	74 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						!
							İ	!
				:			·	
'		######################################	_	•				
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	589 589 649 685 685 685	00000000000000000000000000000000000000		1				İ
raines de la company de la com	545 545 570 570 570 570 570 570 570 570 570 57	24.25 27.55 27.55 27.55 3.05 3.05 3.05 3.05 3.05 3.05 3.05 3		! .				
000000	000000	00000000		, ,			!	
	a ten em ember fil esp	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		; ;				:
2020202	122252	0.000000000000000000000000000000000000						
		era das del especia cul (V				' '	: ;	
								i i
		25 E					: !	:
		NA HONO					•	
566544	11346	PAR PER SE						
	1004 1004 1004 1004 1004 1004 1004 1004	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		; ;		'		
	POP POP	PROPERTY OF THE PROPERTY OF TH		'				
MAX WAX RCIT REFL	ALGE See See	L.W.TERP.FLUX L.W.TERR.FLUX ALBEDO NFOV N.T. RADIATION N.T. RADIATION L.W. POD NFOV AMCSOL MEDO			. !		•	1
∞⊳ 120 0×00 −− 10	ממי-אינטארט אף רעצ	00000000000000000000000000000000000000					•	
					!	1	i 	